

Listing of Claims:

Please amend the claims of the application as follows. This Listing of Claims will replace all prior versions and listings of claims in the application:

Claims

1. (Currently Amended) An assembly adapted for bone, tissue and/or duct dilatation of a living being comprising in combination: (a) a hollow tube having a fluid inlet at a tube proximal end, a fluid outlet at a tube distal end, and a tube lumen extending between the fluid inlet and the fluid outlet; (b) an inflatable and deflatable balloon element having a balloon interior and balloon proximal and distal ends in fluid communication with the hollow tube lumen; and, (c) balloon tensioning and/or balloon wrapping device(s) for stretching the balloon element and/or folding, pleating or wrapping the balloon element before and/or after inflation to facilitate insertion and/or removal of the balloon element through a narrow diameter duct, access channel or canula, said balloon tensioning and/or balloon wrapping device(s) comprising at least a spring element which can alternately be compressed or decompressed, said spring being associated with a rod extending through at least a part of said tube lumen and said balloon interior such that compression of the spring element applies an axial stretching force to the balloon and decompression of the spring element releases the axial stretching force.

2. (Previously Presented) An assembly according to claim 1 wherein said balloon element is capable of being inflated to a working diameter of about 12 mm to about 25 mm.

3. (Previously Presented) An assembly according to claim 1 wherein said balloon element is capable of being inflated to a working pressure of about 200 – 400 psi over a relatively short balloon working length.

4. (Previously Presented) An assembly according to claim 1 wherein said balloon element is stretched and/or folded, pleated or wrapped to a diameter of about 4 – 5 mm or less for insertion through and/or removal from said duct, access channel or canula.

5. (Previously Presented) An assembly according to claim 1 wherein said balloon tensioning and/or balloon wrapping device(s) is/are selected from the group consisting of active and passive tensioning and wrapping devices.

6. (Previously Presented) An assembly according to claim 1 wherein, upon inflation to its working pressure, the balloon element maintains a high degree of puncture and abrasion resistance.

7. (Currently Amended) An assembly according to claim 1 wherein the balloon element is mounted ~~on~~ at the distal end of the ~~hollow~~ tube, and the proximal end of the balloon element is bonded to or integrally connected ~~with an end to~~ the fluid outlet of the tube to create a passage through the tube lumen ~~to~~ and the balloon interior ~~of the balloon element~~.

8. (Currently Amended) An assembly according to claim 7 wherein the distal end of the balloon element is sealed, and ~~the assembly further comprises a rod element running~~ extends through the passage ~~of the tube and the interior of the balloon element~~ to the sealed distal end of the balloon element.

9. (Currently Amended) An assembly according to claim 8 wherein axial force can be applied manually and/or automatically to push the rod ~~element~~ against the sealed distal end of the balloon element causing tension and axial elongation of the balloon element.

10. (Currently Amended) An assembly according to claim 9 wherein the rod ~~element~~ is not attached to the balloon element.

11. (Currently Amended) An assembly according to claim 9 wherein the rod ~~element~~ is attached to or otherwise engages the balloon element.

12. (Currently Amended) An assembly according to claim 11 further wherein rotational force can be applied manually or automatically to rotate the rod element ~~from its relative to a free-standing position~~ causing the balloon element at least in part to wrap around the rod element.

13. (Currently Amended) An assembly according to claim 9 further wherein said rod element is spring loaded is compressed to apply axial tensioning and elongation to the balloon element.

14. (Currently Amended) An assembly according to claim 11 further wherein said rod element is spring loaded to apply rotational tensioning to the balloon element.

15. (Currently Amended) An assembly according to claim ~~14~~ 13 further wherein said rod element is spring loaded to apply ~~both automatic axial and~~ rotational tensioning to the balloon element.

16. (Currently Amended) An assembly according to claim ~~9~~ 11 wherein said rod element ~~comprises~~ engages a compressive or rotational spring element.

17. (Currently Amended) An assembly according to claim ~~7~~ 8 wherein said ~~hollow tube proximal end~~ comprises contains a compressive spring element capable of acting on the rod.

18. (Currently Amended) An assembly according to claim 1 wherein the balloon tensioning and/or wrapping device is ~~hydraulically or pneumatically~~ manually actuated.

19. (Currently Amended) An assembly according to claim 8 wherein said rod element is adjustable in length.

20. (Previously Presented) An assembly according to claim 1 further comprising elastomeric tubing placed over said balloon element.

21. (Previously Presented) An assembly according to claim 1 further wherein the exterior of said balloon element is coated with a material to improve puncture and abrasion resistance.

22. (Previously Presented) An assembly according to claim 11 further comprising at least a canula element wherein at least one end of the balloon element extends into or completely through said canula element when the balloon element is positioned in a cavity to be dilated.

23. (Currently Amended) An assembly according to claim 22 further wherein said canula element ~~is adapted to~~ restricts expansion forces of the balloon element during inflation of the balloon element.

24. (Currently Amended) An assembly according to claim 8 wherein, after the balloon element is inserted in a cavity to be dilated and is inflated to working pressure for a sufficient period of time to achieve the desired degree of cavity dilatation, the interior of the inflated balloon element is filled in situ with a cement material.

25. (Currently Amended) An assembly according to claim 24 wherein the rod ~~element~~ is removed from the balloon interior before the balloon element is filled with a cement material.

26. (Currently Amended) An assembly according to claim 24 wherein the rod ~~element~~ has a hollow interior ~~to~~ that acts as a vent for working fluid in the balloon element while the balloon element is filled with a cement material, ~~and is removed before the cement hardens~~.

27. (Currently Amended) An assembly according to claim 24 wherein the ~~hollow tube~~ is detached from the balloon element after the balloon element is filled with the cement material.

28. (Previously Presented) An assembly according to claim 1 wherein said balloon element comprises a multi-lumen balloon.

29. (Currently Amended) An assembly according to claim 11 wherein said rod ~~element~~ is spring loaded to apply automatic axial tensioning to the balloon element and ~~is adapted~~ comprises an accessible proximal end for optional manual rotational tensioning of the balloon element.

30. (Previously Presented) An assembly according to claim 1 further comprising a pre-curved guidewire in the interior of the balloon element.

31. (Currently Amended) An assembly according to claim 8 wherein said rod ~~element~~ comprises concentric inner and outer tubular members which are rotatable relative to one another and said balloon element is attached to or engages one of said tubular members whereby rotational forces can be applied to cause the balloon element at least in part to wrap around one of said tubular members.

32. (Currently Amended) An assembly according to claim 8 further wherein said rod ~~element~~ is pre-curved and consists essentially of a material having memory properties.

33. (Previously Presented) An assembly according to claim 1 wherein said balloon element is pre-curved.

34. (Previously Presented) An assembly according to claim 1 wherein said balloon element consists essentially of a non-elastomeric material.

35. – 90. (Canceled)

91. (New) An assembly for bone, tissue and/or duct dilatation of a living being comprising in combination:

- (a) an inflatable and deflatable medical balloon;
- (b) a channel for accessing the balloon from a location outside a living body when the balloon is positioned inside the living body;
- (c) a rod having proximal and distal ends extending through the channel to the balloon at the distal end of the rod;
- (d) a spring element capable of temporarily applying axial and/or rotational forces to the balloon by means of the rod causing the balloon to elongate, or to wrap around the rod, or both; and,
- (e) a knob element connected to the proximal end of the rod for manual manipulation of the rod.

92. (New) An assembly according to claim 91 wherein said balloon is capable of being inflated to a working diameter of about 12 mm to about 25 mm.

93. (New) An assembly according to claim 91 wherein said balloon is capable of being inflated to a working pressure of about 200 – 400 psi over a relatively short balloon working length.

94. (New) An assembly according to claim 91 wherein said balloon is stretched and/or folded, pleated or wrapped to a diameter of about 4 – 5 mm or less for insertion through and/or removal from a duct, access channel or canula.

95. (New) An assembly according to claim 91 wherein, upon inflation to its working pressure, the balloon maintains a high degree of puncture and abrasion resistance.

96. (New) An assembly according to claim 91 wherein the balloon has a sealed distal end.

97. (New) An assembly according to claim 91 wherein the rod is attached to or otherwise engages the balloon.

98. (New) An assembly according to claim 91 further wherein said spring is compressed to apply axial tensioning and elongation to the balloon.

99. (New) An assembly according to claim 91 further wherein said rod is spring loaded to apply rotational tensioning to the balloon.

100. (New) An assembly according to claim 91 further wherein said rod is spring loaded to apply rotational tensioning to the balloon.

101. (New) An assembly according to claim 91 wherein said rod is adjustable in length.

102. (New) An assembly according to claim 91 further comprising elastomeric tubing placed over said balloon.

103. (New) An assembly according to claim 91 further wherein the exterior of said balloon is coated with a material to improve puncture and abrasion resistance.

104. (New) An assembly according to claim 91 further comprising at least a canula element wherein at least one end of the balloon extends into or completely through said canula element when the balloon is positioned in a cavity to be dilated.

105. (New) An assembly according to claim 91 further wherein said canula element restricts expansion forces of the balloon during inflation of the balloon.

106. (New) An assembly according to claim 91 wherein, after the balloon is inserted in a cavity to be dilated and is inflated to working pressure for a sufficient period of time to achieve the desired degree of cavity dilatation, the interior of the inflated balloon is filled in situ with a cement material.

107. (New) An assembly according to claim 91 wherein the rod is removed from the balloon interior before the balloon is filled with a cement material.

108. (New) An assembly according to claim 91 wherein the rod has a hollow interior that acts as a vent for working fluid in the balloon while the balloon is filled with a cement material.

109. (New) An assembly according to claim 91 wherein the tube is detached from the balloon after the balloon is filled with the cement material.

110. (New) An assembly according to claim 91 wherein said balloon comprises a multi-lumen balloon.

111. (New) An assembly according to claim 91 further comprising a pre-curved guidewire in the interior of the balloon.

112. (New) An assembly according to claim 91 wherein said rod comprises concentric inner and outer tubular members which are rotatable relative to one another and said balloon is attached to or engages one of said tubular members whereby rotational forces can be applied to cause the balloon at least in part to wrap around one of said tubular members.

113. (New) An assembly according to claim 91 further wherein said rod is pre-curved and consists essentially of a material having memory properties.

114. (New) An assembly according to claim 91 wherein said balloon is pre-curved.

115. (New) An assembly according to claim 91 wherein said balloon consists essentially of a non-elastomeric material.